

# The Cost of Teacher Turnover

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by

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## Introduction

Texas is facing a serious teacher shortage because of increasing student enrollment coupled with decreasing rates of teacher retention. In the 1998-99 school year, Texas school districts had to fill over 63,000 teaching positions. While approximately 5,700 positions were created to accommodate increasing student enrollment, most vacant positions resulted from existing teachers retiring (11,000) or leaving the profession (46,600). Teachers report leaving the field for a number of reasons. Many report leaving for family reasons – to stay home with their own children or to move with their families to a new area. Some pursue other positions in education, while others leave for careers in different fields, often to areas providing higher salaries. Although some teachers leave teaching from burnout after years of teaching, a significant percentage of teachers leave the profession within the first three years of employment. For the beginning Texas teacher cohort in school years 1993-94, 1994-95, and 1995-96, between 13 and 19 percent of these beginning teachers left the profession after the first year. By the end of the third year, between 35 and 43 percent had left. Most recent data shows that 19 percent of beginning teachers in 1998-99 did not return the following school year. For beginning teachers in Texas, turnover rates are extremely high. This represents a cost to public education beyond the expense of operating schools and is a wasted expense that does not contribute to the education of Texas children. It is important to estimate the cost of teacher turnover. High teacher turnover is a burden of cost and inefficiency to the Texas public school system, and turnover may also affect student performance, particularly in schools where the turnover rate is consistently high.

The following report reviews basic methods and industry models for estimating turnover cost. These models represent varying ways to determine the cost of turnover for professional positions. Applying data from Texas school districts illustrates the cost of turnover using industry model estimations. A model of determining teacher turnover cost is proposed, drawing from a variety of existing models. This teacher turnover cost model provides categories of activities and expenses that contribute to costs associated with teacher turnover costs. Comprehensive, empirical data from three Texas school districts are used to illustrate turnover costs according to the proposed model.

## Basic Turnover Estimates

Basic methods for estimating the cost of turnover define the cost as a percentage of annual salary plus the cost of benefits. Pat Hauenstein of Advantage Hiring<sup>1</sup> postulates that the turnover cost per employee is equal to roughly 25 percent of the annual salary of the leaver plus the amount the company invests in benefits for the leaver (Hauenstein, 1999). In this model, the cost for benefits averages 35 percent of the leaver's annual salary. The author notes that this is considered a conservative estimate. In *Cost of Employee Turnover*, Robert Gately's turnover model also asserts that turnover costs equal roughly 25 percent of the leaver's annual salary plus the cost of benefits.<sup>2</sup> Gately suggests that the company's investment in employee benefits is approximately 30 percent of the

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<sup>1</sup> Advantage Hiring is an on-line company providing software tools and advice to expedite the hiring of personnel.

<sup>2</sup> Gately, R.F. *Cost of Employee Turnover* [On-line]. Available:  
<http://ourworld.compuserve.com/homepages/gately/pp06trno.html>

leaver's annual salary. In *Employee Retention: Keeping the Cream*, Barbara Ettorre (1997) estimates turnover cost as 25 percent of the leaver's annual salary. The US Department of Labor estimates that costs to replace an employee average 33 percent of the new hire's salary (Brannick, 1999). These estimates represent one way in which employee turnover costs may be calculated, but due to the lack of itemization of costs, the estimates serve as a rough "best guess" at the cost of turnover for an organization. The estimates are conservative because they do not calculate the actual costs an organization invests in termination, recruitment and hiring, substitutes, learning curve loss, and training. Once all of these costs are calculated, the actual cost of turnover can reach as much as double the annual salary and benefits of the leaver (Fitz-enz, 1997).

Table 1 quantifies differences in the preceding estimations of turnover costs. The table assumes that the leaver is a teacher with no experience. This is a very conservative estimate given that teachers leave at varying points in their careers and will thus have salaries higher than the average for a teacher with zero years experience. Turnover cost is calculated using two methods: turnover cost for one teacher making the state base minimum salary for beginning teachers (\$24,240) and turnover cost for one teacher making the state average for beginning teachers with no experience (\$26,338).<sup>3</sup> It is important to stress that the table below presents the cost associated with losing only one beginning teacher.

**Table 1. Cost of turnover per lost teacher, based on first year teacher salary**

	Using First Year State Base	Using First Year State Average
Advantage Hiring	\$8,181	\$8,889
Gately	\$7,878	\$8,560
Ettorre	\$6,060	\$6,585
US Dept. Of Labor	\$7,999	\$8,692
Fitz-enz	\$48,480	\$52,676

Given the current state teacher turnover rate of 15.5 percent, Texas is losing between \$329 million and \$2.1 billion per year, depending on the industry cost model that is used. The beginning teacher turnover rate is higher than the average rate for all teachers. According to the State Board for Educator Certification, 19 percent of beginning teachers (about 4,100 individuals) leave at the end of their first year of teaching.<sup>4</sup> In 1999, the annual cost of losing beginning teachers is between \$36 and \$216 million, depending on the assumptions of the turnover model. After three years, as many as 43 percent of new Texas teachers have left the profession, resulting in a three-year turnover cost of between \$81 and \$480 million.

While the preceding may serve as conservative estimates, several models give a more complete perspective on the costs of employee turnover. While these models have certain similarities, each proposes a different means of itemizing and calculating the cost of employee turnover. These are

<sup>3</sup> Information on state base salary and average beginning teacher salary was obtained from Texas Association of School Boards and Texas Association of School Administrators (2000). *Salaries and Benefits in Texas Public Schools: Administrative/Professional Report 1999-2000*.

<sup>4</sup> Turnover rates for beginning teachers exceeds the state average for attrition. SBEC (August 2000) reports that the attrition rate for beginning teachers is as high as 19 percent.

general models for computing the cost of turnover for professionals. The models illustrate common turnover cost calculations, many of which can be applied to computing teacher turnover cost for Texas school districts. Following the presentation of the general turnover cost models, applicable cost categories and calculations in these models will be used to calculate teacher turnover cost in three Texas school districts.

## Turnover Cost Models

Basic turnover cost methods provide a simplified means for estimating turnover cost. Although these methods may be based on estimations of cost along a number of categories, they only allow for variation based on salary. Turnover cost models utilize cost categories, and this itemization provides for variation. This variation, in turn, creates more accurate turnover cost estimations. In the following section, five separate industry models are presented.

### *Model One*

Advantage Assessment, Inc.<sup>5</sup> provides a means of calculating turnover cost through their turnover cost calculator. Their model uses the number of leavers and the annual salary for these leavers. In addition, information on hiring, including the number of applicants for each job opening and the number of employees interviewed per job opening, must be provided. Finally, the Advantage Assessment model also uses the total number of employees within the organization.

### *Model Two*

Sorensen (1995) and Jones (1999) propose a similar model for calculating employee turnover costs. Their model includes three primary categories of expenses: (1) hiring costs, (2) training costs, and (3) lost productivity costs. Several factors affect the amount employers spend on hiring. Hiring costs include advertising, the time and effort for reading applications, scheduling and conducting interviews, and post-employment hiring tasks. Training costs involve both orientation activities and training sessions. Sorensen (1995) also includes supervisory time spent in additional on-the-job training as a cost factor. Lost productivity is defined as the trainer's invested time in the leaver and expanded procedural time. Given the timeframe for teacher contracts and the timing of teachers' departures (usually in the summer between school years), districts are less likely to encounter problems with increased procedural time. Productivity loss calculations usually include declines in productivity due to differences in performance between the veteran leaver and the trainee. In education, teacher productivity could be expressed in terms of student performance, but it would be difficult to put a dollar value on performance; therefore, we have not estimated turnover costs due to productivity.

### *Model Three*

People Sense<sup>6</sup> provides a turnover cost calculator that incorporates the three primary categories of Model Two and introduces vacancy costs as a contributor to the cost of turnover. The People Sense model requires the amount for the leaver's annual salary and benefits. Benefits are estimated at 25

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<sup>5</sup> Advantage Assessment Inc. is an on-line company that assists organizations in hiring and employee tracking. Available: <http://www.advantageassessment.com/New/library/TurnoverCost>

<sup>6</sup> People Sense is an on-line company offering management products and services to assist small businesses in hiring, improving productivity, and retaining quality employees. <http://www.peoplesense.com/employeeturnovertemplate.html>

percent of the leaver's annual salary. The number of employees in the organization must also be provided.

People Sense identifies several factors that contribute to recruiting and hiring costs, including advertising, employee referral fees, recruiter(s) fees, and signing bonuses. In addition, the number of weeks the position is vacant and the number of candidates screened also contribute to the hiring costs. Training costs in this model are limited to the number of hours of formal training and the cost per hour of the trainer's time. In order to determine turnover costs due to learning curve loss, the learning curve requirements of the vacant position must be estimated. For a position in which the new employee can easily assume the leaver's duties, the learning curve is considered quick. A quick learning curve predicts that the new employee gains 25 percent productivity each month such that by the fourth month, the new employee is fully productive. For an average learning curve, an employee gains 25 percent productivity in the first three months and 25 percent every two months after that; a new employee must spend 9 months in a position with an average learning curve to be fully productive. For very complicated positions, gains in productivity are slower. With lengthy learning curves, the new employee achieves 25 percent productivity in the first four months and 25 percent productivity every three months following, for a total of 16 months of work (or about two years for a teacher) to achieve full productivity. In addition to hiring, training, and learning curve costs, vacancy costs also contribute to the costs of turnover according to this model. Vacancy costs comprise the wages for substitute employees during the period the position is vacant.

#### *Model Four*

Cascio's model of turnover costs specifies four types of cost involved in turnover: (1) separation costs, (2) replacement or hiring costs, (3) training costs, and (4) learning curve loss (Cascio, 1987). Separation costs involve a number of factors. If an organization conducts exit interviews, the cost of the interviewer's time for preparation and interviewing and the cost of the leaver's time for the interview must be calculated. Separation costs also include the cost of administrative functions related to the separation and any separation pay provided to the leaver (in accrued vacation, etc.).

Like many other models, Cascio's model for turnover cost includes costs related to hiring new employees. These costs encompass costs for communication of availability of the position (such as advertising and/or agency fees), pre-employment administrative tasks, and pre-employment testing costs. In addition, time spent by administrators on entrance interviews and staff time spent in hiring meetings comprise hiring costs. Post-employment tasks and dissemination activities also contribute to the cost of hiring. Any travel costs or other expenses related to moving the new employee should be included in the hiring costs.

The training costs proposed by Cascio include both formal and informal training. Informational literature and training materials comprise part of training costs. In addition, calculations of training costs must include costs of training time for the trainer(s) and the trainee(s) during formal training. The cost of informal training encompasses the time of the supervisor or veteran employee and the time of the trainee spent on informal, on-the-job training. In addition, informal training costs must account for reduction in productivity of the supervisor or veteran employee during the informal training sessions.

Unlike previous models that assume the new employee has lower productivity than the leaver, Cascio stipulates that productivity does not always follow this mold. He assumes that productivity differentials

are reflected in annual salary. To compute performance differentials, he recommends using the following formula:

- divide the leaver's annual salary by the midpoint of the pay grade and multiply this by 100
- divide the new employee's salary by the midpoint and multiply by 100
- subtract the new employee's ratio from the leaver's ratio

If the differential results in a positive number, then a learning curve loss and loss in productivity occur creating an increase in the cost of turnover. If the differential results in a negative number, then a learning curve gain and improvement in productivity occur creating a decrease in turnover costs.

#### *Model Five*

Model Five is a comprehensive model for calculating employee turnover. Described by multiple sources, this model asserts that turnover cost calculations must include termination or separation costs, hiring costs, vacancy costs, learning curve loss, and training costs (Bliss; Fitz-enz, 1997; Pinkovitz, Moskal, & Green, 1997; Fitz-enz, 1998; Brown, 2000). While each source may not define the categories in precisely the same manner, all of the aforementioned sources do include these categories in calculating the cost of employee turnover.

Within termination costs, several factors emerge. Termination costs include exit interview costs, if required by the organization. The cost of administrative tasks related to termination must also be taken into account. These tasks may specifically include processing employee records, security, and payroll (Fitz-enz, 1997), as well as costs related to stoppage of payroll, benefits, and deductions, COBRA notification, and general termination paperwork (Bliss). For eligible employees, termination costs will also include severance and benefits continuances (Bliss; Pinkovitz et al., 1997). The employer also faces changes in unemployment costs (Pinkovitz, et al., 1997). These unemployment costs include the impact of turnover on unemployment premiums and any time or effort devoted to required unemployment hearings (Bliss).

Hiring costs are another factor contributing to turnover costs. In order to recruit for vacant positions, employers may invest in advertising, agency fees, employee referrals, and/or recruiter(s) pay and benefits. When applicable, hiring costs may also include travel for applicants and/or staff and relocation costs (Pinkovitz et al., 1997; Fitz-enz, 1998; Brown, 2000). To calculate hiring costs, the human resources time spent on handling resumes, reviewing candidate requirements, and performing background checks must also be included (Bliss). Hiring costs also encompass the time spent interviewing applicants and the expense for pre-employment tests (Bliss; Pinkovitz et al., 1997). The cost of applicant screenings, such as drug tests, criminal background checks, educational checks, and reference checks, contribute to hiring costs (Bliss). Finally, hiring costs also encompass post-employment administrative tasks such as establishing payroll, security and computer passwords, creating business cards and email connections, and conducting dissemination activities (Bliss; Pinkovitz et al., 1997).

Vacancy costs also factor into the cost of employee turnover. These costs include wages for substitute employees as well as overtime for current employees covering the vacant position (Bliss; Fitz-enz, 1997; Pinkovitz et al., 1997). In addition, the cost of the supervisor's time to oversee that all work is completed during the vacancy must also be included in calculations of vacancy costs (Bliss).

Costs related to learning curve loss also must be included in calculations of employee turnover costs. Learning curve loss costs are the expenses associated with the time it takes for a new employee to reach full productivity (Fitz-enz, 1997; Pinkovitz et al., 1997). According to Bliss, it takes the average employee approximately five months to reach full productivity. This is most likely a conservative estimate for beginning teachers but may be appropriate for experienced teachers moving into new positions.

The final category for employee turnover costs according to this model is training cost. Training costs encompass the cost of the trainer and training materials, including the cost of invested training in the leaver. Orientation activities should also be included in the cost of training (Bliss). In addition, informal training costs must be calculated. These costs include the time veteran employees spend training and assisting the new employee as well as the time the supervisor spends assigning, explaining, and reviewing the work of the new employee (Bliss; Pinkovitz et al., 1997).

## **Total Costs of Turnover**

Estimations of total costs of employee turnover vary by model. Sorensen (1995) approximates that the total turnover costs related to her model are 50 percent of the leaver's annual salary. Ettorre (1997) asserts that turnover costs can reach 100 percent of the leaver's annual salary. The Saratoga Institute estimates that the total cost of employee turnover is 100 to 200 percent of the leaver's pay and benefits (Fitz-enz, 1997). In taking all turnover factors into account, William Bliss of Bliss and Associates (2000) suggests that the total cost of employee turnover is at least 150 percent of the leaver's annual salary. The more the leaver is paid, the higher this percentage for total turnover costs.

In creating these estimates, several sources provide a breakdown of the individual costs for expenses related to turnover. These turnover estimates relate to the cost of turnover for professionals. Not all cost categories are applicable to the cost of teacher turnover. An examination of cost categories applicable to Texas school districts and the teacher turnover cost associated with these cost categories appears later in the report.

Separation costs. In combination with vacancy costs, separation costs can climb as high as 85 percent of the leaver's annual salary (Bliss, 2000). Cascio (1987) presents the following formula for calculating separation costs due to unemployment tax (penalties and additional regular unemployment tax).

$$\begin{aligned}\text{Penalty} &= (\text{new tax rate} - \text{base tax rate}) * [7000 * (\text{total employees} + \text{number of annual turnovers})]^7 \\ \text{Additional tax} &= (\text{new tax rate}) * (7000 * \text{number of annual turnovers})\end{aligned}$$

Hiring costs. Saratoga Institute research indicates that the average hiring cost per employee is equal to \$8,300 (Fitz-enz, 1997). Bliss (2000) estimates total hiring cost at 15 percent of the annual salary of the leaver. If an employment agency is used, this percentage increases to 38 percent. Casio (1987) reported that background investigations of prospective employees average \$300 per candidate in 1980. In 1986, pre-employment testing materials and scoring were often less than \$10 per candidate, and

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<sup>7</sup> \$7,000 was the amount of an employee's annual salary to which the unemployment tax rate was applied in 1987.

drug tests averaged \$30 per candidate (Cascio, 1987). Resume handling can be estimated at \$1.50 per resume (Bliss).

Vacancy costs. Saratoga Institute research reports that organizations average 53 business days to replace an employee (Fitz-enz, 1987). People Sense estimates that the time of the leaver's departure to the first day of the new hire is usually eight to twelve weeks (40 to 60 business days).<sup>8</sup> In estimating vacancy costs, Bliss (2000) asserts that in vacancy costs, in combination with costs of separation, are approximately 85 percent of the leaver's annual salary.

Training costs. In computing training costs, the Saratoga Institute conservatively estimates that training costs total one percent of the leaver's annual salary (Fitz-enz, 1997). Bliss (2000) places this estimate at 13 percent of the leaver's annual salary. In computing the cost of informal training, Bliss suggests that the supervisors spend approximately seven hours per week training and overseeing the work of new employees for a minimum of the first eight weeks of employment.

Learning curve loss. Saratoga Institute research suggests that new employees spend six months in a position before reaching full productivity (Fitz-enz, 1997). In calculating the cost of the learning curve loss and lost productivity, Bliss (2000) estimates the cost at 32 percent of the leaver's annual salary. Sorensen (1995) proposes calculating the cost due to productivity differentials using the following formula:

$$\text{Cost} = (0.8 * \text{monthly salary}(MS)) + (0.6 * MS) + (0.4 * MS) + (0.2 * MS)$$

This formula suggests that an employee makes 20 percent gains in productivity per month; thus, a new employee must work five months to reach full productivity.

## Applying Turnover Costs

The models highlighted above present various ways to estimate the costs of turnover. To more thoroughly understand the true costs of teacher turnover in Texas districts, two estimations are applied to Texas data. We selected five districts to represent different regions of Texas. These districts enroll between 15,000 and 78,000 students and have turnover rates between 12 percent and 22 percent. The information below quantifies teacher turnover costs based on several conservative estimates (Gately; Ettore, 1997; Hauenstein, 1999) and two pragmatic estimates (Fitz-enz, 1997, Bliss, 2000). The purpose for calculating the examples is to show the results of applying turnover models from industry to school districts in different regions of Texas.

### *Conservative Estimations of Teacher Turnover Cost*

The conservative estimate is based upon the following formula:

$$\text{Turnover cost} = .25 * (\text{leaver's annual salary} + \text{benefits})$$

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<sup>8</sup> People Sense [On-line]. Available at <http://www.peoplesense.com/employee turnover template.html>



Benefit cost is defined as 30 percent of the leaver's annual salary. The cost of teacher turnover varies by the experience level of the teacher (as a reflection of annual salary). Cascio (1987) proposes that pay differentials are directly associated with the productivity levels of employees; the following data reflect that proposition. Table 2 also includes state averages.

Table 2 highlights the cost of teacher turnover per teacher in five Texas districts using a conservative estimate. Information in Table 2 shows similar costs among districts in different regions and highlights the fact that costs are roughly consistent across the state using the conservative methodology.

**Table 2. Conservative cost of teacher turnover per lost teacher, by years of experience<sup>9</sup>**

<b>Cost based on teacher with the following years of experience</b>	<b>North Texas District</b>	<b>Panhandle District</b>	<b>South Texas District</b>	<b>West Texas District</b>	<b>Central Texas District</b>	<b>State Average</b>
0 years	\$10,328	\$8,750	\$9,063	\$8,906	\$7,575	\$8,231
5 years	\$10,567	\$8,905	\$9,892	\$9,595	\$8,869	\$9,365
10 years	\$11,490	\$10,541	\$11,589	\$10,541	\$10,541	\$10,910
15 years	\$12,504	\$11,800	\$13,052	\$11,865	\$11,800	\$12,170
20 years	\$13,860	\$12,750	\$13,357	\$12,895	\$12,750	\$13,122
Average teacher salary	\$12,359	\$11,385	\$11,973	\$11,158	\$10,603	\$11,120

Placing the above figures in context gives a broader understanding of the cost of teacher turnover for districts. As noted earlier, although based on salary, these costs are the total turnover costs not including the salary and benefits associated with the position. In other words, they are additional cost due to the fact that an employee left the organization and must be replaced. Table 3 includes the teacher turnover rates for the sample districts for the 1998-99 school year.<sup>10</sup> In continuing to use the conservative estimates for turnover costs (25 percent of the annual salary and benefits), Table 3 illustrates the actual total teacher turnover costs for a variety of scenarios. While Table 2 highlights the cost for losing a single teacher, Table 3 uses actual teacher turnover rates for districts to conservatively estimate the total turnover costs sample districts face by losing as many as 22 percent of their teaching force.

The information contained in Table 3 assumes that the teacher turnover percentage reflects a loss of only teachers of the same experience level. For example, if the 11.7 percent of teachers (175 teachers) that the South Texas district lost in the 1998-99 school year were all beginning teachers, this district would face a total turnover cost of \$1,647,471 for the 1998-99 year by conservative estimates, whereas if all teachers leaving the South Texas district had ten years of experience, the associated turnover cost would exceed \$2 million. In addition, Table 3 includes the total turnover cost if each district lost a group of teachers all making the average teaching salary. Totals for the state also are provided.

<sup>9</sup> Average salary by years experience was obtained from *Salaries and Benefits in Texas Public Schools: Administrative/Professional Report 1999-2000*, TASB and TASA and is district-specific.

<sup>10</sup> Turnover rates are from AEIS 1998-99 reports on the TEA website.

**Table 3. Total cost of teacher turnover, conservative estimates for the 1998-99 school year**

	<b>North Texas District</b>	<b>Panhandle District</b>	<b>South Texas District</b>	<b>West Texas District</b>	<b>Central Texas District</b>	<b>State Average</b>
Teacher turnover rate	16.4%	13.8%	11.7%	11.7%	22.8%	15.5%
Teachers lost	755	300	175	184	223	40,260
All teachers having the following years of experience:						
0 years	\$7,797,734	\$2,625,000	\$1,585,938	\$1,638,750	\$1,689,225	\$331,361,218
5 years	\$7,978,227	\$2,671,406	\$1,731,133	\$1,765,480	\$1,977,731	\$377,030,639
10 years	\$8,674,950	\$3,162,188	\$2,028,031	\$1,939,475	\$2,350,559	\$439,231,636
15 years	\$9,440,567	\$3,540,000	\$2,284,133	\$2,183,160	\$2,631,400	\$489,946,082
20 years	\$10,464,300	\$3,825,000	\$2,337,508	\$2,372,623	\$2,843,250	\$528,293,298
All teachers with average salary	\$9,331,328	\$3,415,406	\$2,095,297	\$2,053,153	\$2,364,427	\$447,686,140

Table 3 illustrates that turnover rates and the costs associated with turnover vary among Texas districts. Turnover rates within districts directly affect the cost of teacher turnover. Turnover costs also depend on the pattern of teachers leaving. Losing more experienced teachers results in higher costs; however, losing beginning teachers at higher rates also results in high costs for the state.

#### *Pragmatic Estimations of Teacher Turnover Costs*

Using Bliss's estimate, Table 4 reflects the total cost of turnover per lost teacher for the sample districts (Bliss, 2000). Use of this estimate is consistent with the average estimation of turnover costs provided by the Saratoga Institute (Fitz-enz, 1997). This estimate assumes that total turnover costs equal 150 percent of the leaver's annual salary, as seen in the formula:

$$\text{Turnover cost} = 1.50 * (\text{leaver's annual salary})$$

**Table 4. Pragmatic cost of teacher turnover per lost teacher, by years of experience<sup>11</sup>**

<b>Cost based on teacher with the following years of experience</b>	<b>North Texas District</b>	<b>Panhandle District</b>	<b>South Texas District</b>	<b>West Texas District</b>	<b>Central Texas District</b>	<b>State Average</b>
0 years	\$49,575	\$42,000	\$43,500	\$42,750	\$36,360	\$39,507
5 years	\$50,723	\$42,743	\$47,498	\$46,056	\$42,570	\$44,952
10 years	\$55,152	\$50,595	\$55,626	\$50,595	\$50,595	\$52,368
15 years	\$60,011	\$56,640	\$62,651	\$56,952	\$56,640	\$58,415
20 years	\$66,528	\$61,200	\$64,115	\$61,895	\$61,200	\$62,987
Average teacher salary	\$59,325	\$54,647	\$57,471	\$53,561	\$50,894	\$56,115

While Table 4 illustrates the turnover cost per teacher, calculating turnover costs using actual teacher turnover rates for the sample districts more adequately represents the total turnover costs that districts face. Table 5 includes the teacher turnover rates for the sample districts for the 1998-99 school year.<sup>12</sup>

The information contained in Table 5 assumes that the teacher turnover percentage reflects a loss of only teachers of the same experience level. For example, if the 22.8 percent of teachers (223 teachers) that the Central Texas district lost in the 1998-99 school year were all beginning teachers, this district would face a total turnover cost of \$8,108,280 for the 1998-99 year. Table 5 also includes the total turnover cost if each district lost a group of teachers all making the average teaching salary. In addition, state totals for turnover costs are also provided. As before, the figures in Table 5 reflect the total turnover cost associated with the annual teacher turnover rate for sample districts by pragmatic estimations (150 percent of the actual salary).

<sup>11</sup> Average salary by years experience was obtained from *Salaries and Benefits in Texas Public Schools: Administrative/Professional Report 1999-2000*, TASB and TASA.

<sup>12</sup> Turnover rates are from AEIS 1998-99 reports on the TEA website.

**Table 5. Total cost of teacher turnover, pragmatic estimates for the 1998-99 school year**

	<b>North Texas District</b>	<b>Panhandle District</b>	<b>South Texas District</b>	<b>West Texas District</b>	<b>Central Texas District</b>	<b>State Average</b>
Teacher turnover rate	16.4%	13.8%	11.7%	11.7%	22.8%	15.5%
Teachers lost	755	300	175	184	223	40,260
All teachers having the following years of experience:						
0 years	\$37,429,125	\$12,600,000	\$7,612,500	\$7,866,000	\$8,108,280	\$1,590,533,844
5 years	\$38,295,488	\$12,822,750	\$8,039,438	\$8,474,304	\$9,493,110	\$1,809,747,067
10 years	\$41,639,760	\$15,178,500	\$9,734,550	\$9,309,480	\$11,282,685	\$2,108,311,853
15 years	\$45,314,723	\$16,992,000	\$10,963,838	\$10,479,168	\$12,630,720	\$2,351,741,191
20 years	\$50,228,640	\$18,360,000	\$11,220,038	\$11,388,588	\$13,647,600	\$2,535,807,831
All teachers with average salary	\$44,790,375	\$16,393,950	\$10,057,425	\$9,855,132	\$11,349,925	\$2,148,893,474

### Turnover Costs Applicable to Texas School Districts

To provide additional information on the cost of turnover, we selected three Texas school districts to serve as examples for estimating teacher turnover cost. We requested detailed expenditure information from these districts. We then interviewed the human resource director and deputy superintendent or chief financial officer for each district to gain a better understanding of the district's hiring and retention history and the approaches taken to fill teacher vacancies. Districts A and B are relatively large districts (student enrollments between 10,000 and 25,000) located in urban areas outside central cities. In contrast, District C has a student enrollment under 3,000 and is located in an independent town approximately thirty minutes from an urban area. Districts A and C have high rates of teacher turnover (20.4 and 23.3 percent respectively) and report difficulties hiring qualified teachers. District B has a turnover rate slightly lower than the state average (15.0 percent) and reports that it does not have difficulty hiring qualified teachers. These districts serve only as examples and represent a continuum of costs associated with teacher turnover. Districts across the state may experience greater or lower costs when losing a teacher. Turnover cost variation may be due to several factors. The geographic area and the type of community in which the district is located (i.e., central city, suburban, rural, etc.) may affect turnover rates. Central city and rural districts continue to experience great difficulties hiring and retaining qualified teachers. Another factor is student clientele. The percentage of at-risk and economically disadvantaged students as well as the student mobility rates may affect the ease or difficulty districts experience when hiring new teachers. Districts' ability to pay signing bonuses and stipends for shortage areas may also affect the ease of hiring and turnover rates.

Interviews yielded the information on cost categories that directly contribute to teacher turnover costs in Texas districts. These include separation costs, hiring costs, and training costs. Separation costs

include expenses associated with exit interviews and administrative tasks. Hiring costs include costs related to advertising, recruiting, processing applications and resumes, background checks, interviews, signing bonuses, stipends, and administrative tasks associated with hiring a new teacher. Training costs include new teacher orientation and professional development training provided to new teachers. The interview instrument can be found in Appendix A. All district turnover cost calculations are included in Appendix B. It is important to note that some districts were more explicit in describing activities and expenses, but these descriptions may not result in higher costs. For example, while District C may identify fewer tasks within a cost category than District A, the individuals involved in the tasks and the time associated with these tasks for District C may be higher and result in greater costs.

### *Separation Costs*

Two primary areas, exit interviews and administrative tasks, contribute to teacher turnover separation costs. These are shown in Table 6. Districts A and B (both large districts) conduct exit interviews when a teacher decides to leave the district; District C does not conduct these interviews. For District A, the building principal and the recruiter conduct the ten-minute exit interview. District A's cost per leaver is approximately nine dollars. District B's exit interviews are conducted by the building principal and typically last 30 minutes. District B spends slightly more than \$27 dollars per leaver.

All three districts identify administrative tasks contributing to turnover costs. For each leaver in District A, the teacher's resignation must be approved, and benefits and payroll activities must be completed. The assistant superintendent, building principal, payroll supervisor, benefits clerk, and recruiter complete the various administrative tasks that cost District A \$508 per leaver. In District B, the following administrative tasks must be carried out: approval of resignation, retrieval of district property, notification to insurance companies and payroll, COBRA notification, completion of teacher's service record, and provision of records to leaver. The assistant superintendent, personnel specialist, and benefits specialist complete the administrative tasks for which District B spends \$114 per leaver. Administrative tasks in District C include the creation of an exit report and COBRA notification. The campus principal and the director of human resources carry out these tasks which average \$498 per leaver.

**Table 6. Separation costs applicable to districts in Texas**

Activity	Cost per Teacher Lost		
	District A	District B	District C
Exit interview	\$9.01	\$27.01	NA
Administrative tasks	\$508.13	\$114.25	\$497.76

### *Hiring Costs*

Many different activities contribute to hiring costs, including advertising, recruiting, application processing, background and reference checks, interviews, administrative costs, and stipends and signing bonuses. Table 7 shows the results for these districts. Districts use various methods to advertise vacant teaching positions, and all advertise multiple positions simultaneously. All three districts place advertisements in local newspapers and post job openings on their district websites. In addition, District A uses Internet postings and advertises in magazines and at local cinemas. District B creates flyers and mails postings to other districts and universities. District C takes advantage of free postings

on the Troops for Teachers Internet site. While District A spends over \$90 per leaver on advertising and District C spends \$42, District B spends less than \$6 per leaver. It is important for the reader to keep in mind that unlike Districts A and C, District B reports that it does not have difficulty hiring qualified teachers, and its hiring costs reflect this.

In addition to advertising, all three districts either host or participate in job fairs in which representatives from the districts answer questions, discuss vacancies, and conduct interviews with possible candidates. District A employs a recruiter who participates in job fairs, conducts interviews, processes applications, and hires new teachers. In Districts B and C, various staff members participate in recruiting efforts. The recruiting costs associated with these activities are \$633 for District A, \$36 for District B, and \$109 for District C.

Districts must also process applications. In District A, the recruiter and the recruiter secretary process applications, while in District B, this responsibility lies with the personnel clerk and personnel receptionist. In District C, the human resources assistant processes applications. In addition, District C belongs to a co-op that conducts screenings and qualifying of teaching applicants. District A spends \$15 per leaver on application processing, District B spends \$10, and application processing costs District C \$48 per leaver.

Criminal history and reference checks are conducted in all three districts, with each district contracting services for criminal history checks. In District B, the human resources director conducts reference checks, and in District C, these checks are completed by the personnel clerk and the personnel receptionist. Per leaver, background and reference checks cost District A \$71, District B \$27, and District C \$56.

For each vacant positions, districts interview a number of candidates. District A conducts interviews with an average of three applicants, while an average of four candidates are interviewed in Districts B and C. In District A, the recruiter and the building principal participate in interviews, and sometimes a committee may be formed to assist in the interview process. In district B, the associate superintendent and the personnel director typically conduct interviews with occasional assistance from other administrators, principals, and teachers. In District C, the human resources director and the building principal complete interviews. Interviews cost District A \$73, District B \$80, and District C \$124.

After hiring new teachers, various administrative tasks must be completed. In District A, the building principal, human resources director, payroll supervisor, and benefits clerk complete paperwork on payroll and benefits and perform additional administrative tasks, at a cost of \$451 per leaver. The benefits and personnel specialists, associate superintendent, and director for personnel benefits of District B establish personnel files and obtain teacher service records, college transcripts, teaching certificates, contracts, and letters of intent. The completion of administrative tasks costs District B \$54 per leaver. In District C, administrative tasks are completed by the human resources director, benefits coordinator, and human resources assistant for a cost of \$13 per leaver.

Districts A and C offer some teachers stipends or signing bonuses.<sup>13</sup> District B does not offer incentives. District A provides a \$700 annual stipend for ESL and special education teachers and a \$3000 stipend for bilingual teachers. Approximately 28 percent of teachers in District A receive one of these stipends. District C provides \$1000 stipends for bilingual teachers, with six percent of the teaching staff receiving these. Per leaver, stipends cost District A \$392 and District C \$120. In addition to stipends, District A provides one-time signing bonuses for teachers in school shortage areas; approximately 18 percent of new teachers receive signing bonuses. District A spends \$720 per leaver on signing bonuses. District C offers a \$1000 signing bonus for every new teacher, investing \$2000 per leaver on signing bonuses.

**Table 7. Hiring costs applicable to districts in Texas**

Activity	Cost per Teacher Lost		
	District A	District B	District C
Advertising cost	\$91.12	\$5.50	\$41.67
Recruiting costs	\$633.26	\$36.09	\$108.46
Processing applications/resumes	\$15.33	\$9.74	\$47.75
Background checks	\$70.67	\$26.54	\$56.33
Conducting interviews	\$73.33	\$80.31	\$124.44
Administrative tasks	\$450.52	\$54.12	\$12.72
Signing bonus	\$720.00	NA	\$2000.00
Subject matter shortage area stipend	\$392.00	NA	\$120.00

### *Training Costs*

After accepting teaching positions, new teachers receive orientation and additional professional development training in all three districts. Table 8 shows these costs. In District A, new teachers attend the traditional new teacher inservice led by the building principal, GT coordinator, and the bilingual director. District B provides a new teacher orientation in which presentations are made by the associate superintendent, building principal, personnel specialist, personnel department, and the directors of various departments. District C also provides a new teacher orientation for beginning teachers and their mentors. The human resources director and the benefits coordinator lead the orientation. Minimal costs are associated with the new teacher orientations that Districts A, B, and C provide.

Throughout the year, teachers in all three districts have the opportunity to attend professional development training. District A provides professional development subsidies of at least \$2,000 per teacher, and teachers are out of the classroom typically four to six days for training activities. As a small district, District C offers approximately \$200 subsidies for teachers to pursue professional development each year, with teachers out of the classroom an average of three days per school year.

<sup>13</sup> Because stipends and signing bonuses are invested in the teacher leaving the district and also provided to new teachers filling these vacancies, costs associated with stipends and bonuses are doubled. In addition, although not calculated using the conservative estimates, the amount districts invest in stipends increases with the teacher's years of experience, resulting in greater hiring and turnover costs associated with the loss of more experienced teachers.

Training costs include not only the professional development subsidies but also the cost associated with employing a substitute teacher while the teacher is attending training.<sup>14</sup>

**Table 8. Training costs applicable to districts in Texas**

Activity	Cost per Teacher Lost		
	District A	District B	District C
Orientation	\$2.39	\$1.36	\$4.84
Training	\$2200.00	*	\$353.00

\* Training costs were not available for District B.

Table 9 summarizes the applicable turnover costs in all cost categories. Totals for each district per lost teacher are also provided. Turnover cost per teacher is highest for District A, followed somewhat closely by the cost for District C. District B has significantly lower turnover cost per teacher; however, two things must be kept in mind when interpreting this finding. First, District B reports that it does not have difficulty hiring quality teachers, even in teaching areas that are identified as shortage areas for the state. Second, while District B provides ample staff development for beginning and continuing teachers, because of their professional development system, exact costs and time devoted to professional development training were not available. It is also important to note that districts do not identify or report expenditures specific to teacher turnover; therefore, turnover costs for Texas districts would be difficult to study on a large scale.

**Table 9. Teacher turnover costs applicable to districts in Texas**

Activity	Cost per Teacher Lost		
	District A	District B	District C
<i>Separation costs</i>			
Exit interview	\$9.01	\$27.01	NA
Administrative tasks	\$508.13	\$114.25	\$497.76
<i>Hiring costs</i>			
Advertising cost	\$91.12	\$5.50	\$41.67
Recruiting costs	\$633.26	\$36.09	\$108.46
Processing applications/resumes	\$15.33	\$9.74	\$47.75
Background checks	\$70.67	\$26.54	\$56.33
Conducting interviews	\$73.33	\$80.31	\$124.44
Administrative tasks	\$450.52	\$54.12	\$12.72
Signing bonus	\$720.00	NA	\$2000.00
Subject matter shortage area stipend	\$392.00	NA	\$120.00
<i>Training costs</i>			
Orientation	\$2.39	\$1.36	\$4.84
Training	\$2200.00	*	\$353.00
<b>TOTAL per teacher lost</b>	<b>\$5,165.76</b>	<b>\$354.92</b>	<b>\$3,366.97</b>

\* Training costs for District B were not available.

<sup>14</sup> For the purposes of calculating substitute teacher costs, the average cost per day for a non-degreed substitute (average for the education service center region in which each district is located) was used.



This empirical evidence demonstrates the dramatic difference between districts in their ease of hiring and retaining teachers. Some districts, such as District B, may have lower costs due to their geographic, economic, and community characteristics. Some districts are in more desirable locations due to labor market conditions, and some districts may have profiles (including stability in leadership and finance, student performance, and school and district accountability) more attractive to teachers. While districts like District B do not have many difficulties hiring and retaining teachers, they represent only a small fraction of Texas districts. Most districts across the state are experiencing difficulties with teacher turnover. For this reason, it would not be accurate to simply average district costs. Instead, the empirical data, in combination with information on industry turnover cost models, suggest the cost of teacher turnover can be estimated as 20 percent of the leaving teacher's annual salary.

## Summary

Most school districts across the state currently face challenges with teacher recruitment and retention. While the cost associated with teacher turnover in Texas school districts cannot be realistically eliminated, policymakers and school personnel must be aware of the high cost associated with losing and replacing teachers. Using the most conservative turnover cost estimation method, Texas is losing approximately \$329 million each year due to teacher turnover, with alternate estimations for these costs reaching as high as \$2.1 billion per year.

The beginning teacher turnover rate is higher than the average rate for all teachers. According to the State Board for Educator Certification, 19 percent of beginning teachers leave at the end of their first year of teaching, costing upwards of \$216 million per year, depending assumptions embedded in industry turnover models. After three years, as many as 43 percent of new Texas teachers have left the profession, resulting in a three-year turnover cost for new teachers as much as \$480 million. The turnover cost for beginning teachers using a pragmatic model that estimates cost at 150 percent of salary costs \$1.590 billion per year.

This turnover cost represents a loss of resources to the education system. Administrative time tied to tasks associated with teacher turnover could otherwise be dedicated to activities supporting teaching and learning in Texas schools. Student performance may also be negatively impacted by teacher turnover, especially in districts with consistently high turnover rates. In addition, turnover has a human cost for teachers, particularly for new teachers who invested time and resources to become teachers.

Turnover, especially among new teachers, can be reduced by teacher support programs, professional resources for experienced teachers, and advanced certification opportunities. Beginning teacher support in a team-based model holds promise for reducing attrition in the first years of teaching. Under the Texas Beginning Educator Support System (TxBESS) program, beginning teachers have a support team of three experienced professionals from the classroom (a mentor teacher), administration, and higher education. Part of the support program offered through TxBESS provides formative assessment to assist the beginning teacher in developing proficiencies required for successful teaching. Turnover among experienced professionals may be reduced by improving the professional growth opportunities available to teachers. Participating as a mentor or support-team member in a program such as TxBESS

is one such opportunity. Stipends, training, and other resources validate the experience and effort of the experienced teachers who assist their less-experienced colleagues. Providing time and financial support to teachers to earn master teacher certification and other advanced professional certificates can pay off in reduced attrition from teaching as well as improved instruction and student performance.

Teacher turnover results in a high cost to the state and local school districts. Funds used to pay for turnover-related expenses could be used to benefit Texas students and teachers in other ways. Policymakers and district administrators must evaluate how teachers, especially those just entering the profession, are supported. Implementing strategies to retain qualified teachers must become a priority. By using professional support, time, training, and financial resources, Texas school districts are likely to increase the number of teachers who remain in the Texas teaching force.

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## **Appendix A**

### **Turnover Cost Interview**

#### Exit interviews

1. Does your district conduct exit interviews? {If no, please go to question 4}
2. Who is typically involved in an exit interview? {Please include the number of individuals involved and their titles/position}
3. How long does a typical exit interview usually last?

#### Administrative tasks

4. What types of administrative tasks are associated with a teacher leaving the district? {Ex. processing records, security, payroll, benefits; COBRA notification}
5. How many individuals are typically involved in completing the administrative tasks associated with a teacher leaving? What are their titles/positions?
6. How much time does it take for ALL administrative tasks to be completed?

#### Unemployment taxes

7. When a teacher leaves, does your district experience any changes in the unemployment taxes? If so, how? {Ex. penalties, general increases in unemployment taxes.}

#### Advertising

8. In what ways do you advertise openings for teacher positions? {newspaper, Internet, etc.}
9. Does your district usually advertise for multiple positions at the same time? If so, in a typical year, how many positions do you advertise for at one time?
10. What types of advertising costs do you typically encounter when trying to recruit for a teaching position? {Please provide cost estimations for each category of advertising costs}

#### Recruiter

11. Do you use recruiters in trying to find qualified teachers? How many recruiters do you employ? {If none, please go to question 16}
12. What types of activities will a recruiter typically perform?
13. Is this recruiter paid on a consulting or salary basis?

14. If salaried, what is the salary range for a recruiter? If consulting, what is the typical consulting fee? {If consulting, please specify the amount of the recruiter's time associated with the consulting fee.}

15. In a typical year, how many new teachers does the recruiter recruit? How many will actually be hired?

#### Travel

16. Does your district pay any travel costs (either for the recruiter or the applicants) during the hiring process?

17. If so, how much does the district average per teaching position?

#### Processing applicants

18. How does your district process applications and resumes?

19. Who handles this task? {Please specify the number of individuals involved and their titles/positions}

20. How much time is associated with processing applications/resumes?

21. What types of background checks do you perform on prospective employees?

22. Who is involved in this task? {Please specify the number of individuals involved and their titles/positions}

23. How many background checks do you typically conduct for a single teaching position?

24. How much time is associated with conducting background checks on a single applicant?

#### Interviews

25. How many interviews do you typically conduct for a vacant teaching position? Do you ever conduct multiple interviews with the same applicant?

26. Who usually conducts these interviews? {Please specify the number of individuals involved and their titles/positions}

27. How much preparation time do interviewers usually need for these interviews?

28. How long do these interviews typically last?

29. Once interviews have been conducted, how does the district choose which applicant to extend an offer to?

30. Who is involved in this selection process? {Please specify the number of individuals involved and their titles/positions}

31. How long does the selection process typically last?

#### Co-ops

32. Does your district belong to an electronic co-op which does the screenings and qualifying of applicants? {If not, please go to question 36}

33. What are the costs associated with belonging to this co-op?

34. How does this co-op work? What steps does it eliminate in the hiring process?

35. How many teachers in a typical year does your district hire from the co-op pool?

#### Stipends and bonuses

36. Does your district pay stipends to new teachers assigned to shortage areas? {bilingual, math special ed, science, ESL, foreign language, alternative education, computer/technology}

37. In the past year, what percentage of new teachers received shortage area stipends?

38. Does your district pay signing bonuses to new teachers?

39. In the past year, what percentage of new teachers received signing bonuses?

#### Post-employment tasks

40. What types of administrative tasks must be completed after a teacher has been hired? {Ex. establishing payroll, security, benefits, computer passwords, email; dissemination activities}

41. Who is involved in these tasks? {Please specify the number of individuals involved and their titles/positions}

42. How long does it typically take for these administrative tasks to be completed?

#### Orientation

43. What types of beginning teacher support activities do you offer new teachers? {If none, please go to question 48.}

44. How many teachers attend these activities in a typical school year?

45. Who is involved in conducting these activities? {Please specify the number of individuals involved and their titles/positions}

46. What type of time commitment is usually required of the individuals involved? {other than the beginning teachers}
47. Are teachers given any orientation materials? If so, what are the costs associated with the materials for EACH beginning teacher?

### Training

48. How is your district assisting teachers with the new requirements for professional development training associated with certification?
49. In the first year of teaching, how much professional development will you subsidize for a new teacher? {in terms of cost for training, training materials}
50. How many days is the new teacher absent from the classroom due to professional development training?

## **Appendix B**

### **Turnover Cost Calculations**

The following rules are used in all calculations of turnover cost. If any calculation deviates from these rules, a footnote describes the rule used for the calculation. Sources of information are also noted.

- Teacher turnover rates are drawn from: Texas Education Agency (2000). *Snapshot '99: 1998-99 School District Profiles*. Austin, TX: TEA.
- Salaries for teachers, principals, superintendents, and directors are the beginning salaries for the specific position (district specific). Duty days are district-reported. Both are drawn from: Texas Association of School Boards and Texas Association of School Administrators (2000). *Salaries and Benefits in Texas Public Schools: Administrative/Professional Report 1999-2000*. Austin, TX: TASB/TASA.
- A clerk, HR assistant, or specialist's salary is the average salary for a professional support staff for the ISD. This information is drawn from: Texas Education Agency (2000). *Snapshot '99: 1998-99 School District Profiles*. Austin, TX: TEA.
- A secretary/receptionist's salary is district-reported.
- The salary per day of substitutes is based on averages for non-degreed substitutes in the ESC in which the district is located. This information is drawn from: Texas Association of School Boards and Texas Association of School Administrators (2000). *Salaries and Benefits in Texas Public Schools: Administrative/Professional Report 1999-2000*. Austin, TX: TASB/TASA.
- Estimations of time are district-reported from the interview. If multiple individuals are involved in a task, the reported time is divided evenly among all individuals involved.
- For stipends and signing bonuses, district costs are computed for the amount invested in the lost teacher and the amount provided to new teachers filling the vacant positions.



### District Turnover Cost Calculations Overview

<b>Task</b>	<b>Time on Task</b>	<b>Individuals Involved</b>	<b>Cost per Year</b>
<b><i>SEPARATION COSTS</i></b>			
<b>Exit interview</b>	minutes per interview		
District A	10	principal	\$2,039.86
District B	30	principal	\$4,205.46
District C	NA	NA	NA
<b>Separation administrative tasks</b>	hours per leaver		
District A	24	asst. superintendent, principal, payroll supervisor, benefits clerk	\$115,040.63
District B	4.5	asst. superintendent, personnel specialist, benefits specialist	\$17,788.73
District C	16	principal, HR director	\$22,946.74
<b><i>HIRING COSTS</i></b>			
<b>Advertising</b>			
District A			\$20,630.55
District B			\$856.35
District C			\$1,920.75
<b>Recruiting costs</b>			
District A		Recruiter	\$143,369.45
District B		principal, HR specialist, asst. superintendent	\$5,618.92
District C		various staff	\$5,000.00
<b>Processing applications</b>			
District A	20 hrs/wk	recruiter secretary	\$3,471.30
District B	5 min/ap	personnel clerk and personnel receptionist	\$1,516.22
District C	2 hr/wk	HR asst	\$2,201.16

<b>Task</b>	<b>Time on Task</b>	<b>Individuals Involved</b>	<b>Cost per Year</b>
<b><i>HIRING COSTS cont.</i></b>			
<b>Background checks</b>	per application		
District A		Safe Schools Project	\$16,000.00
District B	10 min	personnel clerk and personnel receptionist; plus DPS checks costs	\$4,132.44
District C	30 min	HR director and HR asst plus DPS check costs	\$2,596.63
<b>Interviews</b>	per interview		
District A (3 per position)	45 min	principal	\$16,601.35
District B (4 per position)	20 min	asst. superintendent and HR director	\$12,503.75
District C (4 per position)	30 min	HR director and principal	\$5,736.68
<b>Post-employment administrative tasks</b>	per new hire		
District A	24 hrs	principal, director, payroll supervisor, benefits clerk	\$101,997.73
District B	2 hrs	benefits specialist, personnel specialist, asst super., HR director	\$8,425.71
District C	30 min	HR director, benefits coordinator, HR asst	\$586.14
<b>Stipends</b>			
District A		bilingual (\$3000), special ed & ESL (\$700), 28% of teachers	\$88,748.80
District B			NA
District C		bilingual (6% of teachers)	\$5,532.00
<b>Signing bonus</b>			
District A		\$2000 for high needs (18% of teachers)	\$163,008.00
District B			NA
District C		\$1000 for all teachers	\$92,200.00

<b>Task</b>	<b>Time on Task</b>	<b>Individuals Involved</b>	<b>Cost per Year</b>
<b><i>TRAINING COSTS</i></b>			
<b>Orientation</b>			
District A	18 hr	principal, GT coordinator, bilingual director	\$540.80
District B	1 hr per individual	asst super, HR director, secretary, personnel specialist, directors	\$211.52
District C	4 hr per individual	HR director and benefits coordinator	\$223.00
<b>Training</b>			
District A		district subsidizes \$2000 per new teacher for PD; teacher out 4 days	\$502,608.00
District B		Information not available	Information not available
District C		District subsidizes \$200 per teacher; out 3 days	\$16,273.30

## District Turnover Cost Calculations District A

Annual Teacher Turnover Rate = 20.4%

1,110 FTE teachers \* 20.4% = 226.4 teachers leave annually (all calculations based on this number of positions)

### SEPARATION COSTS

#### *Exit Interview*

Leaver's salary/hr =  $\$32,100 / (187 \text{ days} * 8 \text{ hr/day}) = \$21.46/\text{hr}$

$\$21.46 * 1/6 \text{ hr} = \$3.58$  per leaver for exit interview

Principal salary/hr =  $\$57,623 / (221 \text{ days} * 8 \text{ hr/day}) = \$32.59/\text{hr}$

$\$32.59 * 1/6 \text{ hr} = \$5.43$  per principal for exit interview

#### **Total cost per year for exit interviews**

$(\$3.58 + \$5.43) * 226.4 \text{ interviews} = \mathbf{\$2,039.86}$

#### *Separation Administration Tasks*

Assistant superintendent salary/hr =  $\$71,895 / (229 \text{ days} * 8 \text{ hr}) = \$39.24/\text{hr}$

$\$39.24/\text{hr} * 0.5 \text{ hr}^{15} = \$19.62$  per leaver for administrative tasks

Principal salary

$\$32.59/\text{hr} * 5.875 \text{ hr} = \$191.47$  per leaver for administrative tasks

Payroll supervisor salary/hr =  $\$46,311 / (229 \text{ days} * 8 \text{ hr}) = \$25.28/\text{hr}$

$\$25.28/\text{hr} * 5.875 \text{ hr} = \$148.52$  per leaver for administrative tasks

Benefits clerk salary

$\$25.28/\text{hr} * 5.875 \text{ hr} = \$148.52$  per leaver for administrative tasks

#### **Total cost per year for separation administrative tasks**

$(\$19.62 + \$191.47 + \$148.52 + \$148.52) * 226.4 \text{ leavers} = \mathbf{\$115,040.63}$

### HIRING COSTS

#### *Advertising*

$226.4 \text{ positions} / 22 \text{ positions per advertising effort}^{16} = 10.29 \text{ advertising efforts/yr}$

Newspaper ad =  $\$1,050 \text{ per ad} * 10.29 \text{ ads/yr} = \$10,805.55$

Internet =  $\$2,000$  per year

Cinema =  $\$7,000$  per year

Magazine ads =  $\$825$  per year

#### **Total cost per year for advertising**

$\$10,805.55 + \$2,000 + \$7,000 + \$825 = \mathbf{\$20,630.55}$

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<sup>15</sup> Estimated time to approve resignation. Total reported time for administrative tasks is 24 hours. Remaining 23.5 hours divided evenly among principal, payroll supervisor, and benefits clerk.

<sup>16</sup> Positions per advertisement and advertising costs are district-reported.

### *Recruiting*

Recruiter salary/yr = \$85,000 salary + (20% \* \$85,000) benefits = \$102,000

Travel budget = \$17,000 per year

Recruiting budget<sup>17</sup> = \$45,000 - \$20,630.55 (advertising) = \$24,369.45

#### **Total cost per year for recruiting**

$\$102,000 + \$17,000 + \$24,369.45 = \$143,369.45$

### *Processing Applications*

20 hr per week to process applications, with 10 hours of this time for recruiter processing (see Recruiting section for recruiter salary)

Recruiter secretary salary/hr = \$68.38 per day / 8 hr = \$8.55/hr

#### **Total cost per year for processing applications**

$\$8.55/\text{hr} * 10 \text{ hr/wk} * 40.6 \text{ wk} = \$3,471.30$

### *Background Checks*

\$16,000/yr to belong to Safe Schools Project which completes all background checks

#### **Total cost per year for background checks**

**\$16,000.00**

### *Interviews*

3 interviews/position \* 226.4 positions = 679.2 interviews/yr

679.2 interviews/yr \* 0.75 hr per interview = 509.4 hr

Recruiter salary (see Recruiting section)

Principal salary

$\$32.59/\text{hr} * 509.4 \text{ hr} = \$16,601.35$

#### **Total cost per year for interviews**

**\$16,601.35**

### *Post-Employment Administrative Tasks*

Principal salary

$\$32.59/\text{hr} * 4 \text{ hr} = \$130.36$

Director of personnel salary

$\$29.48/\text{hr} * 4 \text{ hr} = \$117.92$

Benefits clerk salary

$\$25.28/\text{hr} * 4 \text{ hr} = \$101.12$

Payroll supervisor salary

$\$25.28/\text{hr} * 4 \text{ hr} = \$101.12$

#### **Total cost per year for post-employment administrative tasks**

$(\$130.36 + \$117.92 + \$101.12 + \$101.12) * 226.4 \text{ positions} = \$101,997.73$

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<sup>17</sup> Recruiting budget drawn from TASP (July 1999). *TASP Update*, Special Report No. 22. Budget excludes travel costs.

### *Stipends*

Bilingual stipend of \$3,000 and \$700 for ESL and Special Education  
28% of leaving teachers received stipends (conservatively assume only \$700 stipends) and 28% of new teachers receive stipends (estimate \$700 stipends)

#### **Total cost per year for stipends**

$$28\% * 2 * 226.4 \text{ positions} * \$700 = \mathbf{\$88,748.80}$$

### *Signing Bonus*

\$2,000 one-time signing bonus for teachers in shortage areas (18% of leaving teachers received bonuses and 18% of new teachers receive bonuses)

#### **Total cost per year for signing bonuses**

$$18\% * 2 * 226.4 \text{ positions} * \$2,000 = \mathbf{\$163,008.00}$$

## TRAINING COSTS

### *New Teacher Orientation*

Principal salary

$$\$32.59/\text{hr} * 6 \text{ hr} = \$195.54$$

Bilingual director salary/hr =  $\$59,419 / (229 \text{ days} * 8 \text{ hr}) = \$32.43/\text{hr}$

$$\$32.43/\text{hr} * 6 \text{ hr} = \$194.58$$

GT coordinator salary

$$\$25.28/\text{hr} * 6 \text{ hr} = \$151.68$$

#### **Total cost per year for new teacher orientation**

$$\$195.54 + \$194.58 + \$151.68 = \mathbf{\$540.80}$$

### *Professional Development*

Subsidize \$2,000 per teacher for professional development training (4 days per yr)

Substitute salary

$$\$55/\text{day} * 4 \text{ days} = \$220 \text{ per teacher}$$

#### **Total cost per year for professional development**

$$(\$2,000 + \$220) * 226.4 \text{ teachers} = \mathbf{\$502,608}$$

## District Turnover Cost Calculations District B

Annual Teacher Turnover Rate = 15.0%

1,038 FTE teachers \* 15.0% = 155.7 teachers leave annually (all calculations based on this number of positions)

### SEPARATION COSTS

#### *Exit Interview*

Leaver's salary/hr = \$30,000 / (187 days \* 8 hr/day) = \$20.05/hr

\$20.05 \* 0.5 hr = \$10.03 per leaver for exit interview

Principal salary/hr = \$59,577 / (219.3 days \* 8 hr/day) = \$33.96/hr

\$33.96 \* 0.5 hr = \$16.98 per interview for principals

#### **Total cost per year for exit interviews**

(\$10.03 + \$16.98) \* 155.7 interviews = **\$4,205.46** per year

#### *Separation Administration Tasks*

Asst. Super salary/hr = \$65,994 / (226 days \* 8 hr) = \$36.50/hr

\$36.50 \* 0.5hr<sup>18</sup> = \$18.25 per leaver for administrative tasks

Personnel specialist salary/hr = \$43,393 / (226 days \* 8 hr) = \$24.00/hr

\$24.00 \* 2 hr = \$48.00 per leaver for administrative tasks

Benefits specialist salary/hr = \$43,393 / (226 days \* 8 hr) = \$24.00/hr

\$24.00 \* 2 hr = \$48.00 per leaver for administrative tasks

#### **Total cost per year for separation administrative tasks**

(\$18.25 + \$48.00 + \$48.00) \* 155.7 leavers = **\$17,788.73**

### HIRING COSTS

#### *Advertising*

155.7 positions / 30 position per advertising effort<sup>19</sup> = 5.19 advertising efforts/year

Mailings = \$15.00/ mailing \* 5.19 mailings/yr = \$77.85

Newspaper ad = \$150/ad \* 5.19 ads = \$778.50

#### **Total cost per year for advertising**

\$77.85 + \$778.50 = **\$856.35**

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<sup>18</sup> Estimated time to approve resignation. Total reported time for administrative tasks is 4.5 hours. Remaining 4 hours divided evenly among personnel and benefits specialists.

<sup>19</sup> Positions per advertisement and advertising costs are district-reported.

### *Recruiting*

Job Fair is 6 hours per employee

Principal salary

$$\$33.96/\text{hr} * 6 \text{ hr} * 17 \text{ principals} = \$3,463.92$$

Asst. Super salary

$$\$36.50/\text{hr} * 6 \text{ hr} = \$219$$

Total job fair costs = \$3,682.92

Higher education site visits – 32 hours per employee

Asst. Super salary

$$\$36.50/\text{hr} * 32 \text{ hr} = \$1,168$$

HR Specialist salary

$$\$24/\text{hr} * 32 \text{ hr} = \$768$$

Total costs for site visits = \$1,936

**Total cost per year for recruiting**

$$\$3,681.90 + \$1,936.00 = \$5,618.92$$

### *Processing Applications*

1/12 hr processing/application \* 1,100 applications/yr = 91.67 hr/yr

Personnel clerk salary

$$\$24/\text{hr} * 45.835 \text{ hr} = \$1,100.04$$

Personnel receptionist salary

$$\$9.08/\text{hr} * 45.835 \text{ hr} = \$416.18$$

**Total cost per year for processing**

$$\$1,100.04 + \$416.18 = \$1,516.22$$

### *Background Checks*

1/6 hr for background check \* 1,100 checks/yr = 183.3 hr/yr

Personnel clerk salary

$$\$24/\text{hr} * 91.67 \text{ hr} = \$2,200.08$$

Personnel receptionist salary

$$\$9.08/\text{hr} * 91.67 \text{ hr} = \$832.36$$

DPS checks - \$1 per applicant

$$\$1.00/\text{applicant} * 1,100 \text{ applicants/yr} = \$1,100.00$$

**Total cost per year for processing and background checks**

$$\$2,200.08 + \$832.36 + \$1,100.00 = \$4,132.44$$

### *Interviews*

4 interviews/position \* 155.7 positions = 622.8 interviews/yr

622.8 interviews/yr \* 1/3 hr per interview = 207.6 hr

Asst. Super salary

$$\$36.50/\text{hr} * 207.6 \text{ hr} = \$7,577.40$$

HR director salary/hr = \$42,897 / (226 days \* 8 hr) = \$23.73/hr

$$\$23.73/\text{hr} * 207.6 \text{ hr} = \$4,926.35$$

**Total cost per year for interviews per year**

$$\$7,577.40 + \$4,926.35 = \$12,503.75$$



### *Post-Employment Administrative Tasks*

2 hr per position \* 155.7 positions = 311.4 hr/yr

Benefits specialist salary

\$24.00/hr \* 77.85 hr = \$1,868.40

Personnel specialist salary

\$24.00/hr \* 77.85 hr = \$1,868.40

Asst. Super salary

\$36.50/hr \* 77.85 hr = \$2,841.53

HR Director salary

\$23.73/hr \* 77.85 hr = \$1,847.38

**Total cost per year for post-employment administrative tasks**

\$1,868.40 + \$1,868.40 + \$2,841.53 + \$1,847.38 = **\$8,425.71**

### *Stipends*

Not Applicable

### *Signing Bonus*

Not Applicable

## TRAINING COSTS

### *New Teacher Orientation*

1 hour per employee

Asst. Super salary = \$36.50/hr

HR Director salary = \$23.73/hr

Secretary salary = \$9.08/hr

Personnel specialist salary = \$24.00/hr

Finance Director salary/hr = \$56,731 / (226 days \* 8 hr) = \$31.38/hr

Instruc/Curric Director salary/hr = \$57,106 / (226 days \* 8 hr) = \$31.59/hr

Special Ed Director salary/hr = \$57,106 / (226 days \* 8 hr) = \$31.59/hr

Instructional Tech Director salary/hr = \$40,867 / (216 days \* 8 hr) = \$23.65/hr

**Total cost per year for new teacher orientation = \$211.52**

### *Teacher Training*

Information not available

## District Turnover Cost Calculations District C

Annual Teacher Turnover Rate = 23.3%

198 FTE teachers \* 23.3% = 46.1 teachers leave annually (all calculations based on this number of positions)

### SEPARATION COSTS

#### *Exit Interview*

Not applicable

#### *Separation Administration Tasks*

Principal salary/hr<sup>20</sup> = \$48,827.84 / (226 days \* 8 hr) = \$27.01/hr

\$27.01/hr \* 8 hr = \$216.08 per leaver for administrative tasks

HR director salary/hr<sup>21</sup> = \$63,654 / (226 days \* 8 hr) = \$35.21/hr

\$35.21/hr \* 8 hr = \$281.68 per leaver for administrative tasks

#### **Total cost per year for separation administrative tasks**

(\$216.08 + 281.68) \* 46.1 leavers = **\$22,946.74**

### HIRING COSTS

#### *Advertising*

46.1 positions / 6 positions per advertising effort<sup>22</sup> = 7.683 advertising efforts/yr

Newspaper ad = \$250.00/ad

#### **Total cost per year for advertising**

\$250.00 \* 7.683 ads/yr = **\$1,920.75**

#### *Recruiting*

\$5,000/yr for recruiting budget

#### **Total cost per year for recruiting**

**\$5,000.00**

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<sup>20</sup> District C did not provide a beginning principal salary for the *Salaries and Benefits in Texas Schools*. The District C principal salary is an average of beginning principal salaries for two other districts in the region, drawn from *Salaries and Benefits in Texas Schools*.

<sup>21</sup> District C did not provide a beginning HR director salary, and other similar districts in the region did not provide beginning HR director salaries. The District C HR director salary is the average HR director salary for District C, drawn from the *Salaries and Benefits in Texas Schools*.

<sup>22</sup> Positions per advertisement and advertising costs are district-reported.

### *Processing Applications*

2 hr per week to process applications \* 52 weeks/yr = 104 hr/yr

HR assistant salary/hr =  $\$37,137 / (226 \text{ days} * 8 \text{ hr}) = \$20.54/\text{hr}$

Dues for hiring co-op = \$65.00/yr

#### **Total cost per year for processing applications**

$(\$20.54/\text{hr} * 104 \text{ hr}) + \$65.00 = \mathbf{\$2,201.16}$

### *Background Checks*

3 background checks per position \* 46.1 positions = 138.3 checks per year

HR director salary

$\$35.21/\text{hr} * 1/3 \text{ hr}^{23} = \$11.74 \text{ per background check}$

HR assistant salary

$\$20.54/\text{hr} * 1/6 \text{ hr} = \$3.42 \text{ per background check}$

DPS background check fees = \$500.00/yr

#### **Total cost per year for background checks**

$[(\$11.74 + \$3.42) * 138.3 \text{ checks/yr}] + \$500.00 = \mathbf{\$2,596.63}$

### *Interviews*

4 interviews/position \* 46.1 positions = 184.4 interviews/yr

184.4 interviews/yr \* 0.5 hr per interview = 92.2 hr

HR director salary

$\$35.21/\text{hr} * 92.2 \text{ hr} = \$3,246.36 \text{ per yr for interviews}$

Principal salary

$\$27.01/\text{hr} * 92.2 \text{ hr} = \$2,490.32 \text{ per yr for interviews}$

#### **Total cost per year for interviews**

$\$3,246.36 + \$2,490.32 = \mathbf{\$5,736.68}$

### *Post-Employment Administrative Tasks*

0.5 hr per position \* 46.1 positions = 23.05 hr/yr

HR director salary

$\$35.21/\text{hr} * 7.683 \text{ hr} = \$270.52$

Benefits coordinator salary

$\$20.54/\text{hr} * 7.683 \text{ hr} = \$157.81$

HR assistant salary

$\$20.54/\text{hr} * 7.683 \text{ hr} = \$157.81$

#### **Total cost per year for post-employment administrative tasks**

$\$270.52 + \$157.81 + \$157.81 = \mathbf{\$586.14}$

### *Stipends*

Bilingual stipend of \$1,000 (6% of leaving teachers received stipend and 6% of new teachers receive the stipend)

#### **Total cost per year for stipends**

$6\% * 2 * 46.1 \text{ positions} * \$1,000 = \mathbf{\$5,532.00}$

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<sup>23</sup> HR director does 2/3 of checks, HR assistant performs 1/3 of checks according to district interview.

### *Signing Bonus*

\$1,000 one-time signing bonus (all leaving teachers received bonus and all new teachers receive the bonus)

#### **Total cost per year for signing bonuses**

$$\$1,000 * 2 * 46.1 \text{ positions} = \mathbf{\$92,200}$$

## TRAINING COSTS

### *New Teacher Orientation*

HR director salary

$$\$35.21/\text{hr} * 4 \text{ hr} = \$140.84$$

Benefits coordinator salary

$$\$20.54/\text{hr} * 4 \text{ hr} = \$82.16$$

#### **Total cost per year for new teacher orientation**

$$\$140.84 + \$82.16 = \mathbf{\$223.00}$$

### *Professional Development*

\$200 subsidy per teacher

Teachers out three days per school year

$$\$200 \text{ per teacher} * 46.1 \text{ teachers} = \$9,220.00$$

$$\$51/\text{day} * 3 \text{ days} * 46.1 \text{ teachers} = \$7,053.30$$

#### **Total cost per year for professional development**

$$\$9,220.00 + \$7,053.30 = \mathbf{\$16,273.30}$$